

From: [MCCLINCY Matt](#)
To: [Eric Blischke/R10/USEPA/US@EPA](#); [Chip Humphrey/R10/USEPA/US@EPA](#)
Cc: [ANDERSON Jim M](#); [POULSEN Mike](#); [PETERSON Jenn L](#)
Subject: FW: Ambient Sediment Quality Evaluation
Date: 01/18/2006 06:12 PM
Attachments: [\(Email\) Ambient Sediment Quality Table.xls](#)
[Ambient Sediment Quality fig1.pdf](#)

Eric and Chip,

Jennifer passed on some of the "ambient" sediment analysis that they did at Ross Island a couple of years ago. Please forward to the rest of the TCT group as appropriate.

It may be worthwhile asking Jennifer to talk to our working group with regards to any issues that came up during the Ross Island evaluation. If you want, I can ask her. I mentioned to Chip in a side bar discussion today that I think the sediment chemistry changes downstream of Ross Island because of influence of Columbia Basin river sediments. Much of the Pdx Basin is comprised of Columbia Basin sediments derived from the Bretz Floods (catastrophic floods at the end of the last ice age). We should take this into account during our consideration of the background/ambient issue.

Matt

-----Original Message-----

From: SUTTER Jennifer
Sent: Wednesday, January 18, 2006 1:16 PM
To: MCCLINCY Matt
Subject: FW: Ambient Sediment Quality Evaluation

Matt - this was handy so I thought I'd send it on. (The analysis in the phase 2 report included some tables with data from areas outside the Willamette (which we took issue with).)
Jen

-----Original Message-----

From: Pete Rude [mailto:pdrude@landauinc.com]
Sent: Tuesday, February 04, 2003 4:23 PM
To: SUTTER Jennifer
Cc: Jim Rue (E-mail); Richard Cantlin (E-mail); John Fahsbender (E-mail); Len Bergstein (E-mail); Julie Wilson
Subject: FW: Ambient Sediment Quality Evaluation

Here are the attachments.

<<(Email) Ambient Sediment Quality Table.xls>> <<Ambient Sediment Quality_fig1.pdf>>

> -----Original Message-----

> From: Pete Rude
> Sent: Tuesday, February 04, 2003 4:12 PM
> To: Jennifer Sutter (E-mail)
> Cc: Jim Rue (E-mail); Richard Cantlin (E-mail); John Fahsbender (E-mail); Len Bergstein (E-mail); Julie Wilson
> Subject: Ambient Sediment Quality Evaluation

> Jennifer,

> For your information, this e-mail summarizes the draft results of our evaluation of existing ambient sediment quality data in the vicinity of Ross Island. Attached to this e-mail are a draft figure showing the location of historical sampling locations and a draft table of the

> sediment quality information available for these locations. The attached figure is in pdf (Adobe Acrobat) format and the table is in Excel (11x17 size printout would work best). Please let me know if you have any difficulties with these attachments.

> The remainder of this e-mail consists of a brief summary of background on this issue, a description of evaluation results, and a summary with identification of possible next steps.

> Background

> The original objective was to develop a SAP to further characterize ambient sediment quality in the vicinity of Ross Island. The new data

> generated from the SAP, combined with the relevant existing (historical) sediment quality data, were to be used to develop ambient

> sediment concentrations, using established statistical methods. Use of ambient sediment concentrations has been incorporated into the draft Fill Evaluation Scope of Work (FESOW; Class A In-Water Fill, subcategory A1).

> The first task of SAP development was to assemble the existing sediment quality data from the vicinity of Ross Island. These data and the associated sampling locations are shown on Table 1 and Figure 1, respectively. This task revealed that a substantial number of sediment sampling locations already exist and that chemical testing data are available for all of these samples. The information generated from the Port of Portland's investigation, the remedial investigation, the recent sampling of Holgate Slough, and the recent sampling by the U. S. Army Corps of Engineers provides ambient

> sediment quality data for 17 sampling locations. This information
> establishes a data set of reasonable size from which
> statistically-based ambient sediment concentrations can be developed.
>
> The Evaluation
> Table 1 shows the existing ambient sediment quality data and the
> calculated ambient sediment concentrations based on these data. In
> addition, Table 1 includes the toxicity and bioaccumulation screening
> levels identified in the draft FESOW. Note that the list of
> constituents shown on Table 1 is consistent with the list in the draft
> FESOW, but it is a subset of the list for which ambient sediment
> quality data are available.
>
> The lowest concentration for a particular constituent (among the
> calculated ambient concentration and the screening levels) is boxed on
>
> Table 1. When the ambient concentration and one or both of the
> screening levels are equal, both or all three of the values are boxed.
>
> Of the 44 constituents shown on Table 1, 15 (34%) have a calculated
> ambient concentration that is higher than the respective screening
> criteria.
>
> Of the 44 constituents shown on Table 1, 29 (66%) have a calculated
> ambient concentration that is lower than the respective screening
> criteria.
>
> (Note that the results in Table 1 for benzofluoranthenes needs to be
> discussed due to the use of "total" in some cases and the "b" and "k"
> isomers separately in others)
>
> Summary
> 1.) Existing sediment quality data collected from the vicinity of
> Ross Island during previous investigations provide an adequate
> database from which ambient sediment quality conditions can be
> established and evaluated.
>
> 2.) Additional sediment data from new locations in the same general
> area shown on Figure 1 may change the results shown on Table 1. The
> changes are not expected to be significant.>
>
> 3.) The ambient concentrations that are higher than the screening
> criteria could be incorporated into the screening process identified
> in the FESOW.
>
> Please call Julie Wilson or me if you have any questions.
>
>
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